fluid at a desired temperature may be circulated continuously through the appliance to subject the contiguous bodily tissues to a controlled uniform temperature, without undue discomfort to the patient. The water may be forced through the appliance under pressure sufficient to distend the thin walled applicators slightly and thereby to insure even contact of the applicator with the irregular areas over and about the eyes. Distension of the applicator is limited however by the webs of rubber 11, 11 joining the two flat sides of the applicators which serve to prevent extreme distension of the applicator which might cause excessive pressure to be exerted upon the eyes, particularly when the appliance is bound tightly in place. In addition, the webs aid in directing flow of the water to outer circumferential portions of the applicator. It is to be understood that the webs within the applicators, although highly desirable, are not essential and that an applicator without such webs may be used quite satisfactorily in the application of hot or cold treatments.

The complicated structure of the eye-treating device has necessitated the provision of special procedure for its manufacture, which is accomplished by depositing rubber from a liquid rubber dispersion upon suitable forms. Two forms are required. The first form illustrated in Fig. 1 is designed to form one applicator and integral connecting tube, and comprises a generally flat and circular applicator-forming portion 20, preferably having two parallel narrow slots 21, 21 extending from the periphery of the form inward for a distance corresponding to the length of webs required in the finished applicator. A tubular projection 22 having a diameter corresponding to the desired inner diameter of the connecting tube, is provided upon the periphery of the form, preferably between the open ends of the two slots 21, 21 and a rod 23 designed to form the connecting tube proper is screwed into the tubular projection 22 preferably at right angles to the axis thereof and in the plane of the applicator-forming portion 20. The second required form shown in Fig. 3 is designed to form the short tube which connects the two applicators and bridges the nose of a patient, and comprises a curved tubular portion 24 shaped to form the tube, one end of the form being extended to provide a handle 25 for convenience in dipping.

In proceeding with the manufacture of the eye-treating device, small pieces of pearl glue 26, 26, or other water-soluble coherent solid or equivalent disintegrable material, are wedged in the open ends of the slots 21, 21 of the form 20, and the entire form is immersed in a liquid dispersion of rubber preferably a compounded latex, until a relatively thin layer of rubber about 0.01 inch thick is deposited upon the form in any usual manner. The form then is removed from the dispersion and the tube-forming portion 23 preferably is re-dipped until the rubber coating thereupon is considerably heavier than that upon the rest of the form, for example about 0.04 inch thick. The entire rubber coating then is washed thoroughly, during which the glue in the slots is dissolved and completely removed. The washed coating then is dried and partially vulcanized to a degree which will permit of considerable stretching without permanently deforming the rubber, but which is not sufficiently far advanced to prevent securing the best possible adhesion between the rubber and other parts of the applicator later to be adhered thereto. To remove the form from the interior of the rubber, the rod 23 is unscrewed and pulled out the end of the rubber tube 13 formed thereon, and the applicator portion 10 of the rubber is slit for a short distance along the periphery thereof at a point generally opposite to the point of communication of the connecting tube with the applicator portion, and the applicator-forming portion 20 of the form is removed through the slit, the rubber being stretched to permit its removal as indicated in Fig. 2. The procedure thus far described then is repeated to make a second applicator and integral connecting tube identical in structure with the first. The second form 24 then is provided with a relatively heavy coating of rubber of approximately the same thickness as that of the connecting tubes 13, and the rubber is washed, dried, and partially vulcanized as in making the applicators. The rubber then is stripped from the form and is trimmed to provide a nose-bridging tube 12 as illustrated in Fig. 4.

To assemble the various parts of the appliance, the ends of the short nose-bridging tube 12 and the portions of the two applicators immediately surrounding the two slits hereinabove mentioned, are coated with a rubber adhesive such as a rubber cement, or latex, and the ends of the tube are inserted into the slits and are pressed into adhesive engagement with the walls of the applicators. When the adhesive has dried, the entire assembled appliance preferably is immersed in a liquid dispersion of rubber to acquire a thin overall enveloping coating of rubber, which is dried. Thereafter vulcanization of the as yet only partially vulcanized rubber of the assembled appliance, is completed in any convenient manner to provide the finished eye-treating device illustrated in Fig. 5.

A preferred Y surgical drain as illustrated in Fig. 9 consists of a branched tubular structure including a tubular stem 30 and spreading tubular arms 31, 31, all of one-piece integral structure impossible to manufacture satisfactorily by methods in use prior to the present invention.

To manufacture such a Y drain, I utilize a deposition form comprising two separate members detachably assembled to provide the complete deposition form. Thus, the preferred Y form illustrated in Fig. 7 comprises a V shaped member 32 designed to form the spreading arms of the Y, and a straight rod member 33 designed to form the tubular stem of the Y, the end of the straight rod member 33 being detachably secured to the V member at the apex thereof in any suitable manner as by means of the threaded connection shown at 34. The form members conveniently may be made from aluminum rod of suitable size.

The assembled Y form is then provided with an enveloping coating of rubber 35 in any convenient manner, but preferably by preliminarily applying to the form a coating containing a pulverulent material and a coagulant and then immersing the form in liquid rubber latex as described in U. S. Patent No. 1,924,214, the form preferably being supported by the end 37 of the straight form member 33 with the branched portion of the form extending downward during the immersion in the latex. Next the deposited rubber coating is dried and vulcanized according to the customary well known procedures requiring no detailed explanation.

To complete the Y drain, the portions of the rubber deposit overlying the ends of the branches of the Y are cut off, as indicated by the removed portions of rubber 36, 36, the deposition form is